48

TEAC®

SERVICE MANUAL

CX-350/CX-351

Steree Cassette Deck

Effective: February, 1980 890162

5704003601

48

1 SPECIFICATIONS AND SERVICE DATA

SPECIFICATIONS

Track System 4-track, 2-channel stereo
2 Heads Erase, record/playback
Type of Tape Cassette tape, C-60 and C-90 (Philips type)
Tape Speed 4.8 cm/s (1-7/8 ips)
Input (level and impedance)
MIC: Specified input level; –57 dB (1.09 mV)/10 kohms
Min. input level; –67 dB (346 μV)
LINE IN: Specified input level; –9 dB (275 mV)/50 kohms
Min. input level; –19 dB (86.9 mV)
DIN*: Min. input level; –45 dB (4.36 mV)
*Pursuant to DIN standards
Output (level and load impedance)
OUTPUT: Spec. output level; –5 dB (438 mV)/50 kohms
Max. output level; –3 dB (548 mV)
PHONES: Spec. output level; –16 dB (123 mV)/8 ohms
Equalization
METAL: 3180 μs + 70 μs
Co (CrO_2): 3180 μs + 70 μs
NORMAL: 3180 μs + 120 μs
Head Configuration
1/2-track, 1-channel erase head
1/4-track, 2-channel record/playback head
Motor Bridge servo DC motor
Bias Frequency 100 kHz
Operation Position Horizontal
Power Requirements
100/117/220/240V AC, 50/60 Hz, 11W (General Export Model)
117V AC, 60 Hz, 11W (U.S.A./Canada Model)
220V AC, 50 Hz, 11W (Europe Model)
240V AC, 50 Hz, 11W (U.K./Australia Model)
Weight 6.0 kg (13-4/16 lbs.) net
Dimensions See page 3.

* Noise reduction circuit made under license from Dolby Laboratories. The word "Dolby" and the Oouble-D symbol are trademarks of Oolby Laboratories.

CAUTIDN

⚠Parts marked with this sign are safety critical components. They must always be replaced with identical components – refer to the TEAC parts list and ensure exact replacement.

SERVICE DATA

MECHANICAL

Tape Speed Deviation 3,000 Hz ±60 Hz
Tape Spaed Drift 50 Hz
Wow and Flutter
Playback: 0.10% (WRMS)
Record/Playback: 0.25% (RMS)
Pinch Roller Pressure 350 g to 450 g (12.3 oz to 15.9 oz)
Reel Torque
Take-up: 40 to 60 g-cm (0.56 to 0.83 oz-inch)
Supply: 2 to 6 g-cm (0.028 to 0.083oz-inch)
F.F.: 80 to 150 g-cm (1.1 to 2.1 oz-inch)
REW.: 90 to 150 g-cm (1.2 to 2.1 oz-inch)
Fast Wind Time
110 sec. or less for MTT-501 (C-00)
Auto End-stop Time 6 sec. or less

ELECTRICAL

Frequency Response

Playback	(Co (CrO_2)) (METAL)	40 Hz	+2, –4 dB	
		63 Hz	+2, –2 dB	
		315 Hz	0 dB (Ref.)	
		2 kHz	+2, –2 dB	
		4 kHz	+4, –2 dB	
		6.3 kHz	+4, –2 dB	
		10 kHz	+4, –5 dB	
Dverall		40 Hz	+4, –4 dB	
		63 Hz	+4, –4 dB	
		125 Hz	+4, –2 dB	
		250 Hz	+2, –2 dB	
		400 Hz	0 dB (Ref.)	
		6.3 kHz	+2, –2 dB	
		8 kHz	+3, –2.5 dB	METAL, Ce (CrO_2)
		12.5 kHz	+3, –4 dB	
		8 kHz	+3, –3 dB	NORMAL
		10 kHz	+3, –4 dB	

Signal-to-noise Ratio
Playback NORMAL; 46 dB min.
Record/Playback
METAL, Co (CrO_2); 45 dB min.
NORMAL; 44 dB min.
S/N is improved by 5 dB at 1 kHz and 10 dB above 5 kHz when Dolby NR* is used.
Erase Efficiency 65 dB min. at 1 kHz (measured with input 10 dB higher than the specified input level).
Cbannel Separation 30 dB min. at 1 kHz
Adjacont Track Crosstalk 40 dB min. at 125 Hz
Total Harmonic Distortion 2.0% or less with 3 types of tapes

NDTES:
- Improvements may result in SPECIFICATIDNS AND SERVICE DATA changes.
- Value of "dB" in the data refers to 0 dB (0.775 V), except where specified.

2 REMOVAL OF EXTERNAL COMPONENTS

Disassemble in number-order

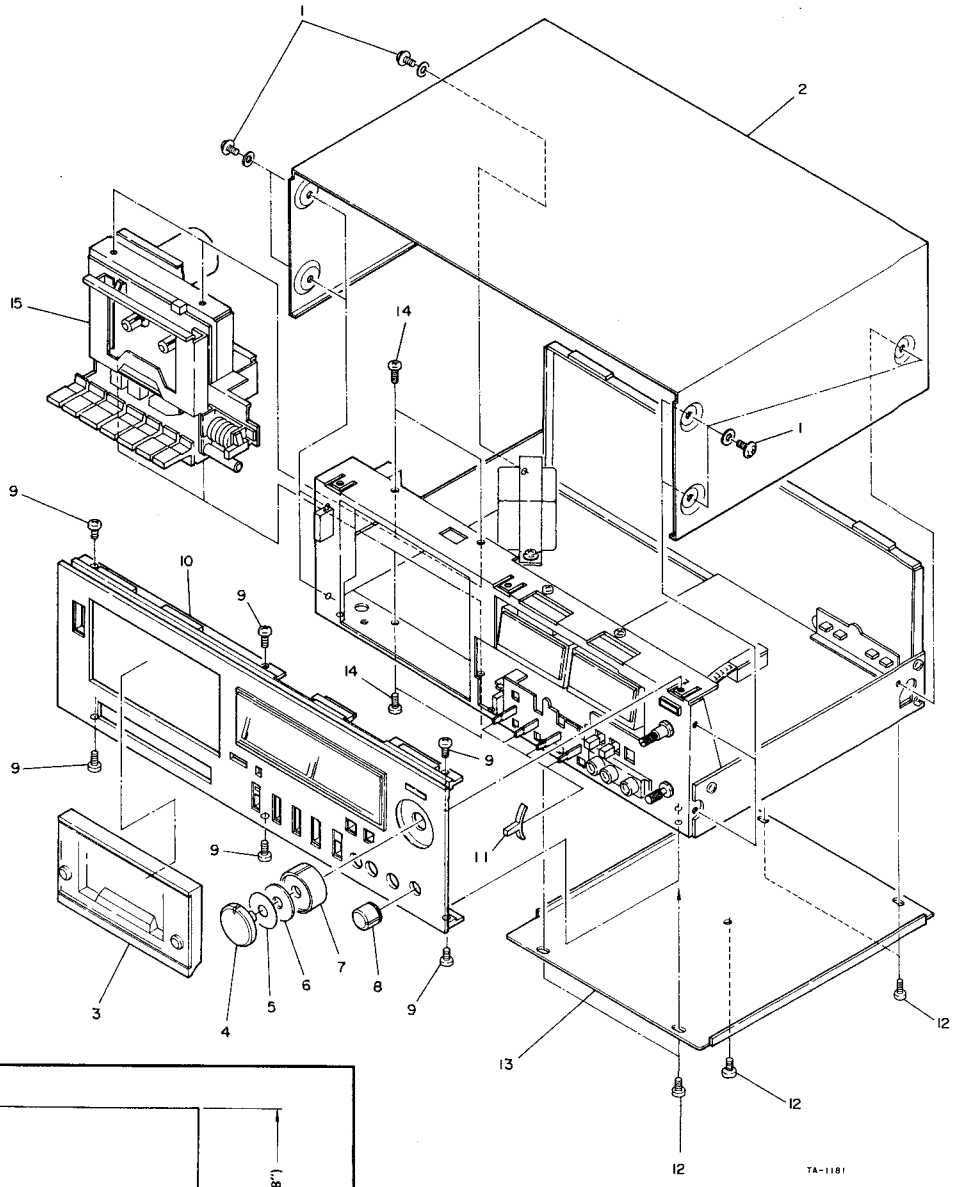


Fig. 2-1

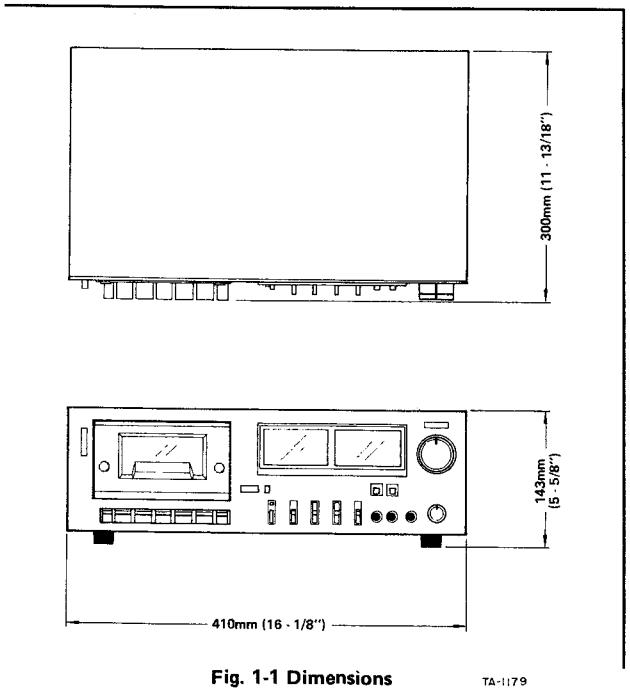


Fig. 1-1 Dimensions TA-1179

3 PARTS LOCATION

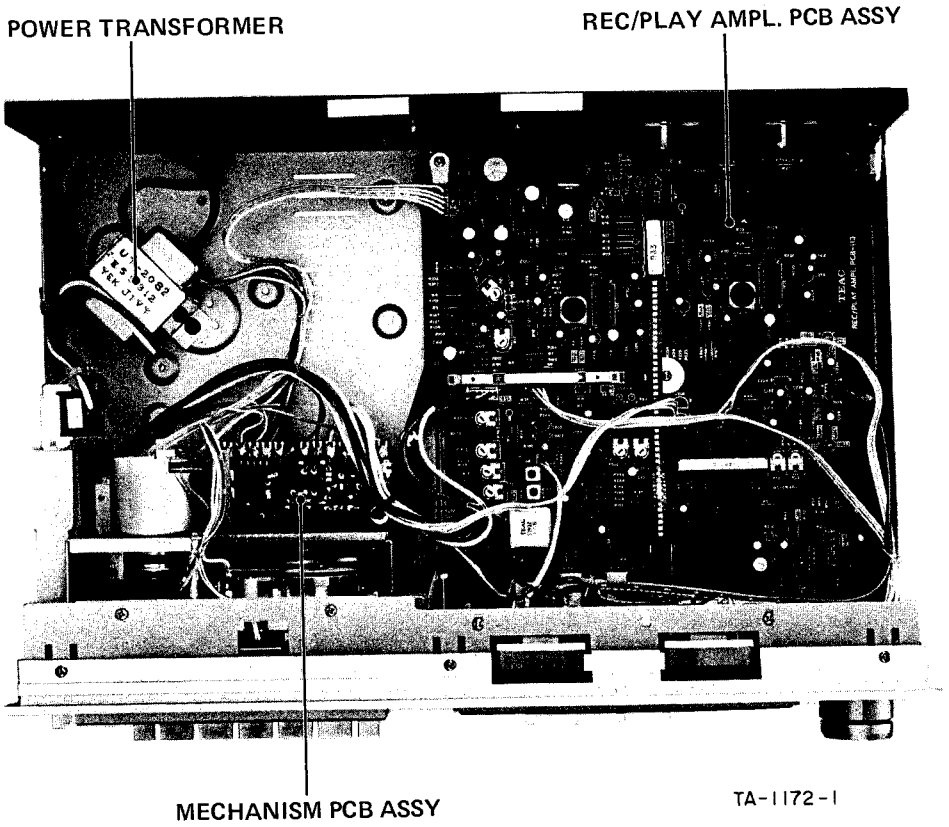


Fig. 3-1

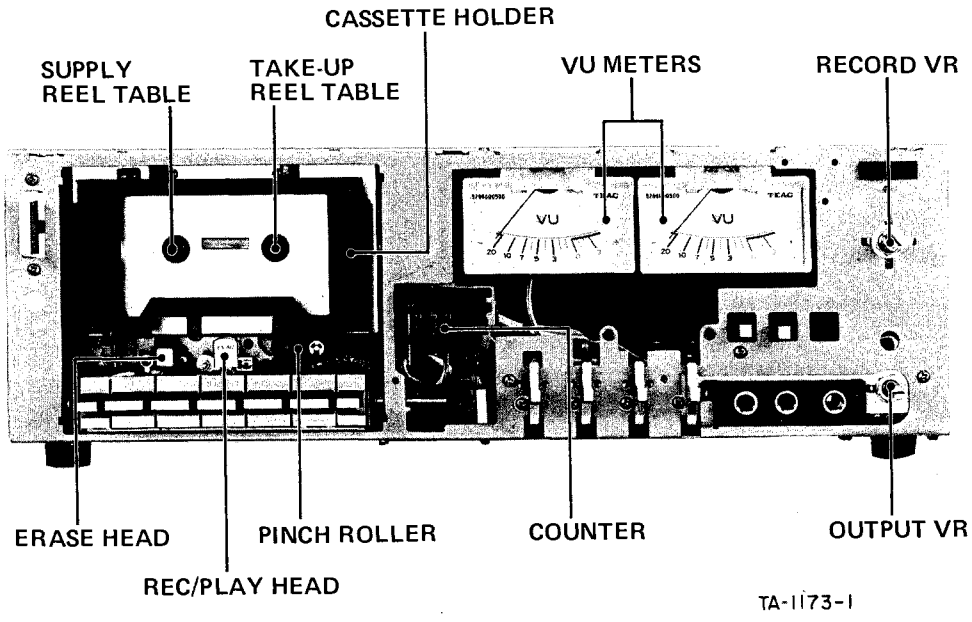


Fig. 3-2

4 MECHANICAL ADJUSTMENTS AND CHECKS

4-1 CAPSTAN ASSEMBLY THRUST

Capstan shaft thrust value: 0.05 mm to 6.15 mm

4-2 PINCH RDLLER PRESSURE

1. Set in the play mode with no tape.
2. Measure the pinch roller pressure when tha pinch roller just begins rotation after it is separated from the capstan shaft.

   Pinch roller pressure: 350 g to 450 g (12.3 oz to 15.9 oz)

4-3 REEL TDRQUE

1. Load a cassette torque meter and read the pointer indication on the dial scale for each tape movement operation.

   Take-up: 40 to 60 g-cm (0.56 to 0.83 oz-inch)
   Supply: 2 to 6 g-cm (0.028 to 0.083 oz-inch)
   F.F.: 80 to 150 g-cm (1.1 to 2.1 oz-inch)
   REW.: 90 to 150 g-cm (1.2 to 2.1 oz-inch)

4-4 TAPE SPEED

1. Load and play a TEAC MTT-111 test tape.
2. Using a common slotted screwdriver with a handle completely insulated from the screwdriver blade, adjust thc control on the motor (as far as possible) for a reading of 3,000 Hz (Spec.: 3,000 Hz ±5 Hz).

NOTE: This tape speed sctting should bc done after about 20 seconds of operating time.

3. Check the following at any portion of the tape run.
   Tape speed deviation . . . . . 3,000 Hz ±60 Hz
   Tape speed drift . . . . . 60 Hz

4-6 MUTING SWITCH

1. When the PLAY key is pressed then locked, the muting switch should be pushed positively.
2. When in the STOP mode, the switch should return to the original released condition.

4-6 MDTDR SWITCH

1. When the PLAY, F.F. or REW. keys are depressed, the motor switch should become ON to start motor rotation.
2. When in the STOP condition, the switch should be off to stop motor rotation.

4-7 LDCK PLATE RELEASE SDLENDID

1. Adjust the lock plate release solenoid position so that when its plunger is pushed into the solenoid housing (bottomed) by hand, the solenoid is positioned as far from the keys as possible but be sure that the lock plate does not foul the flywheel.

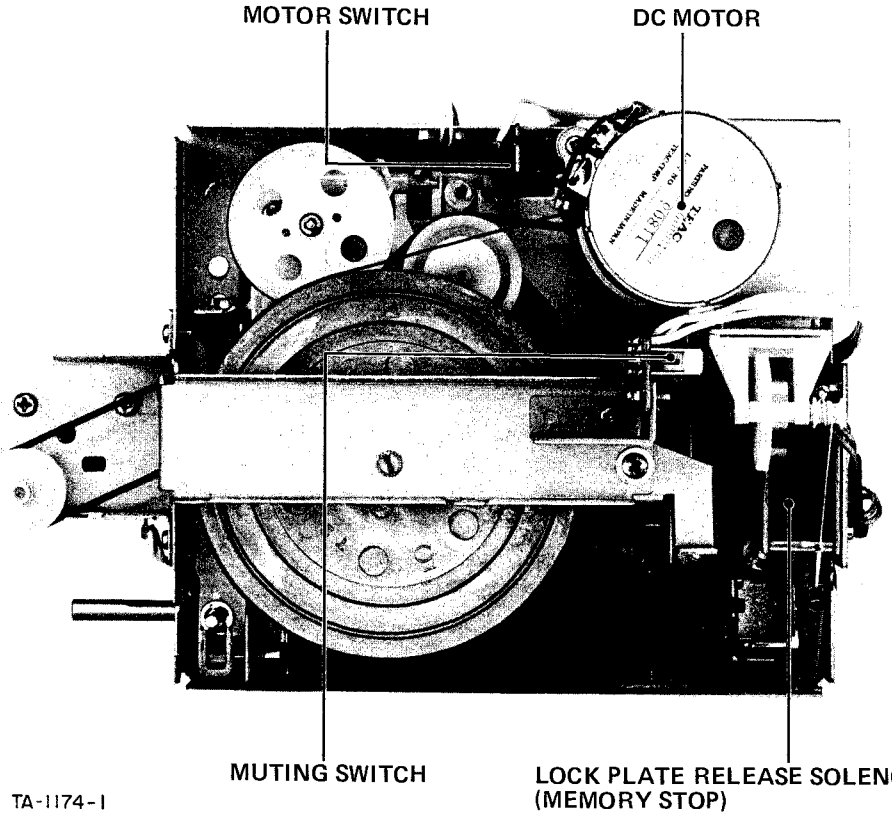


Fig. 3-3

4-B LUBRICATION

Lubrication is only required when parts are replaced. For this purpose, use the oil and grease specified below.

Oil: TEAC spindle oil (from TEAC TZ-255 oil kit),
Mobil D.T.E. Oil (Light, or equivalent)
Grease: ORE-LUBE G1/3 or equivalent

1. Apply a drop of oil with an oil applicator to a point about 1/3 the way down the shaft (from the free end) of the flywheel, then insert the shaft into the capstan housing.
2. Apply a suitable amount of light grease to the well of the flywheel bearing.

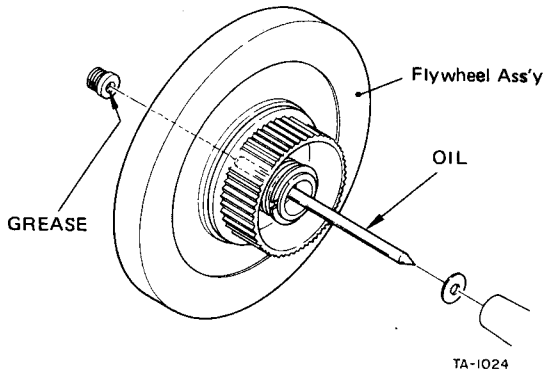


Fig. 4-1

4-9 VOLTAGE CONVERSION (GENERAL EXPORT MODEL ONLY)

ALWAYS DISCONNECT THE POWER LINE CORD BEFORE MAKING THESE ADJUSTMENTS.

1. Remove the top cover of the deck by removing the screws from the sides.
2. Locate the voltage selector, shown in the illustration, near the power transformer.
3. Loosen the two screws in the shorting bar and move the bar so that it shorts across the terminals marked with the required voltage (100, 117, 220 or 240).
4. Retighten the screws.
5. Replace the top cover.

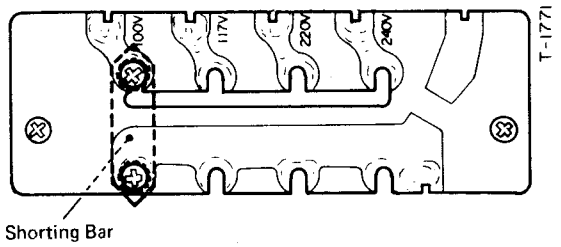


Fig. 4-2

5 ELECTRICAL ADJUSTMENTS AND CHECKS

PRECAUTIONS

1. Before performing adjustments and checks, clean and demagnetize the entire tape path.
2. Make sure the deck is properly set for the voltage in your locality.
3. In general, adjustments and checks are done in the order of L-ch then R-ch. Double REF. NOs. and test point designations indicate L-ch/R-ch.
   (Example: R11/R21)
4. The value of "dB" refers to 0 dB (0.775 V). If an AC voltmeter calibrated to 0 dB (1 V) is to be used, appropriate compensetion should be made.
5. The AC voltmeter used in the procedures must have an input impedance of 1 M-ohms or more.
6. **Note the "Deck settings" at the top of each chart. The settings must he used for all the checks or the chart unless explicitly stated otherwise.**

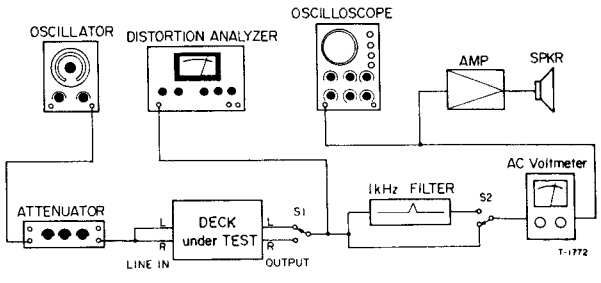


Fig. 5-1 Basic test setup

5-1. PLAYBACK PERFORMANCE

Deck settings:
EQ sw.–METAL
Dolby NR sw.–OUT

TEAC test tapes:
MTT-150: For Dolby level calibration
MTT-316: For playback frequency response check for METAL, Co (CrO_2)
MTT-216: For playback frequency response check for NORMAL

ITEM	INSTRUCTION	INPUT SIGNAL	ADJUST (or CHECK)	MEASURING POINT / RESULT	REMARKS
1. Head azimuth	Conn. – Fig. 5-2 OUTPUT cont. – convenient output level position	MTT-150	Check	OUTPUT • Phase: 45° max. on 'scope (Fig. 5-4)	
		MTT-316 (10 kHz)	Azimuth nut of R/P head (Fig. 5-3)	OUTPUT • Phase: about 0° • Max. output at L-& R-ch's on VTVM	
2. Output level	–	MTT-150	R11/R21	DOLBY TP 580 mV (–2.5 dB)	
	OUTPUT cont. – Max.	MTT-150	Check	OUTPUT –3 dB ±2 dB (436 mV ~ 690 mV)	Max. output level
	–	MTT-150	OUTPUT cont.	OUTPUT L-ch –5 dB (436 mV)	• **Spec. setting of OUTPUT cont.** • Spec. output level
	–	MTT-150	Check	OUTPUT R-ch –5 dB ±1 dB (388 mV ~ 489 mV)	
	IMPORTANT: Do not move OUTPUT cont. during any later process.				
3. VU meter	–	MTT-150	R13/R23	VU meter +3 VU	

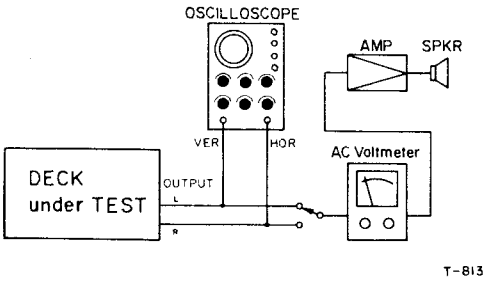


Fig. 5-2 Teat setup for azimuth check

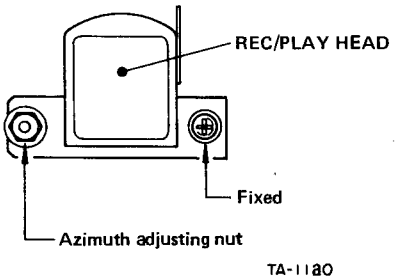


Fig. 5-3 Azimuth nut location

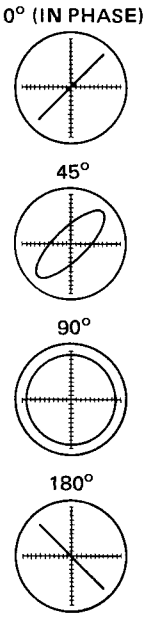


Fig. 5-4 Confirming phase relationship

ITEM	INSTRUCTION	INPUT SIGNAL	ADJUST (or CHECK)	MEASURING POINT / RESULT	REMARKS
4. Frequency response	If 10 kHz output is low, adjust by cutting R137/R237.	MTT-315	Resistors R137/ R237.	OUTPUT 40 Hz +2, −4 dB 53 Hz +2, −2 dB 315 Hz 0 dB (Ref.) 2 kHz +2, −2 dB 4 kHz +4, −2 dB 5.3 kHz +4, −2 dB 10 kHz +4, −5 dB	
	EQ sw. – NORMAL	MTT-316	Check	10 kHz output should be about 4 dB higher than in the step above.	
5. Signal-to-noise ratio	EQ sw. – NORMAL	Fully erased MTT-501 tape (Use bulk tape eraser)	Check	OUTPUT 45 dB min. ratio	Ratio of spec. output −5 dB to noise
6. Headphone output level	Conn. – Fig. 5-5	MTT-150	Check	PHONES −15 dB ±3 dB (86.9 mV ~ 173 mV)	8 ohm load

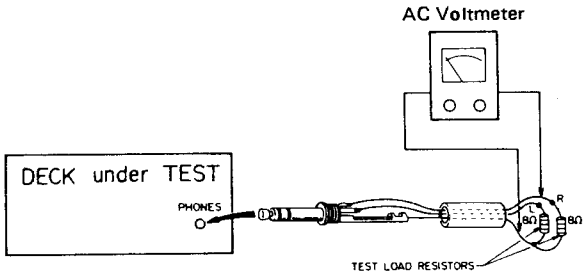


Fig. 5-5 Test setup for headphone check

5-2. MONITOR PERFORMANCE

Deck settings:
REC/PAUSE mode
OOLRY NR sw.–OUT
INPUT sw.–LINE
OUTPUT cont.–Spec. position (item 2)

ITEM	INSTRUCTION	INPUT SIGNAL	ADJUST (or CHECK)	MEASURING POINT / RESULT	REMARKS
7. Min. input level	RECORD cont. – Max. INPUT sw. – MIC	MIC 400 Hz/−57 dB (346 μV)	Check	OUTPUT −5 dB ±3 dB (308 mV ~ 515 mV)	MIC min. input level
	INPUT sw. – MIC	DIN IN 400 Hz/−45 dB (4.35 mV)	Check	OUTPUT −5 dB ±3 dB (308 mV ~ 615 mV)	DIN min. input level (For General Export Models)
	INPUT sw. – LINE	LINE IN 400 Hz/−19 dB (86.9 mV)	Check	OUTPUT −5 dB ±2 dB (346 mV ~ 548 mV)	LINE min. input level
8. LINE spec. input level	–	LINE IN 400 Hz/−9 dB (275 mV)	Record cont.	DOLBY TP 580 mV (−2.5 dB)	**Spec. setting of RECORD cont.**
	–	LINE IN 400 Hz/−9 dB (275 mV)	Check	OUTPUT −5 dB ±1 dB (388 mV ~ 489 mV)	
	IMPORTANT: Do not movo RECORD or, OUTPUT controls during any later process.				
9. VU meter	–	LINE IN 400 Hz/−9 dB (275 mV)	Check	VU meter +3 VU ±1 VU	

5-3. RECORDING PERFORMANCE

Deck settings:

DOLBY NR sw.—OUT
INPUT sw.—LINE
OUTPUT cont.—Spec. position (item 2)
RECORD cont.—Spec. position (item 8)

TEAC test tapes:

MTT-506: For record test with Co (CrO_2)
MTT-561: For record test with NORMAL
METAL: For record tost with METAL

ITEM	INSTRUCTION	INPUT SIGNAL	ADJUST (or CHECK)	MEASURING POINT / RESULT	REMARKS
10. Bias trap	Record-pause mode	LINE IN No signal	U106/U206	BIAS TRAP TP Min. reading	
11. Record bias	① METAL/METAL tape ② Co (CrO_2)/MTT-506 ③ NORMAL/MTT-501	LINE IN 400 Hz & 6.3 kHz alternately/—42 dB (6.15 mV)	R14/R24 R17 R18	OUTPUT Nearly equal level at both freq.	Adjust in the order of ①→②→③
12. Record level	BIAS/EO — METAL METAL tape	LINE IN 400 Hz/—12 dB (195 mV)	R12/R22	OUTPUT —8 dB (308 mV)	
	Co (CrO_2)/MTT-506 tape NORMAL/MTT-501	LINE IN 400 Hz/—12 dB (195 mV)	Check	OUTPUT —8 dB ±1.5 dB (259 mV ~ 367 mV)	
13. Total harmonic distortion	METAL/METAL tape Co (CrO_2)/MTT-506 NORMAL/MTT-501	LINE IN 400 Hz/—12 dB (195 mV)	Check	OUTPUT 2.0% or less distortion	
14. Frequency response	METAL/METAL tape Co (CrO_2)/MTT-506 NORMAL/MTT-501	LINE IN Required signal/ —42 dB (6.15 mV)	Check	OUTPUT 40 Hz +4, —4 dB 63 Hz +4, —4 dB 125 Hz +4, —2 dB 250 Hz +2, —2 dB 400 Hz 0 dB (Ref.) 6.3 kHz +2, —2 dB 8 kHz +3, —2.5 dB 12.5 kHz +3, —4 dB 8 kHz +3, —3 dB 10 kHz +3, —4 dB	}METAL, }Co (CrO_2) }NORMAL
	If frequency response is wrong, recheck steps 11 and 13.				
15. Signal-to-noise ratio	METAL/METAL tape } Co (CrO_2)/MTT-506 } NORMAL/MTT-501...	LINE IN 1 kHz/—9 dB (275 mV) ↓ no signal	Check	OUTPUT } . . . 45 dB min. ratio . . . 44 dB min. ratio	Ratio of spec. output —5 dB to noise
16. Erase efficiency	• Connection — Fig. 5-1. But switch ON 1 kHz filter. • Record 1 kHz. Rewind tape to mid point of recorded portion. Do "no signal" recording. Get difference between 1 kHz portion and its erased portion.				
	METAL/METAL tape	LINE IN 1 kHz/+1 dB (0.869V) ↓ no signal	Check	OUTPUT 65 dB min. ratio	Ref. output level: +5 dB (1.38V)
17. REC MUTE function	• Connection — Fig. 5-1. But switch ON 1 kHz filter. • Record 1 kHz. Then push REC MUTE button for several sec. Rewind end play tape. Get difference between 1 kHz portion and the "no signal" portion.				
	Co (CrO_2)/MTT-506	LINE IN 1 kHz/+1 dB (0.869V) ↓ no signal	Check	OUTPUT 65 dB min. ratio	Ref. output level: +5 dB (1.38V)
18. Channel soparation	• Connection — Fig. 5-1. But do not connect LINE IN (R), switch ON 1 kHz filter. • Set deck in record mode. Find differences between 1 kHz recorded portion (L-ch) and "no signal" portion (R-ch).				
	Co (CrO_2)/MTT-506	LINE IN L-ch 1 kHz/—9 dB (275 mV) R-ch No signal	Check	OUTPUT 30 dB min. ratio	

ITEM	INSTRUCTION	INPUT SIGNAL	ADJUST (or CHECK)	MEASURING POINT / RESULT	REMARKS
19. Adjacent track crosstalk	• Connection – Fig. 5-1. But do not connect LINE IN (L) and OUTPUT (L). • Record 125 Hz on R-ch. Note output level of its recorded portion. Invert tape and play R-ch track. Check leakage level against the output reference of previously recorded portion.				
	Co (CrO_2)/MTT-506	LINE IN L-ch No signal R-ch 125 Hz/–9 dB (275 mV)	Check	OUTPUT 40 dB min. ratio	
20. Dolby NR effect	• Record 1 kHz with Dolby NR switch to OUT. Play its portion with switch, OUT and IN. Get the output level differenca between OUT and IN positions. Repeat the above process for 10 kHz.				
	Co (CrO_2)/MTT-506	LINE IN 1 kHz/–29 dB (27.5 mV)	Check	OUTPUT Variation 3 dB ~ 8 dB	
	Co (CrO_2)/MTT-506	LINE IN 10 kHz/–39 dB (8.69 mV)	Check	OUTPUT Variation 8 dB ~ 12 dB	

5-4. ADJUSTMENT AND TEST POINT LOCATIONS

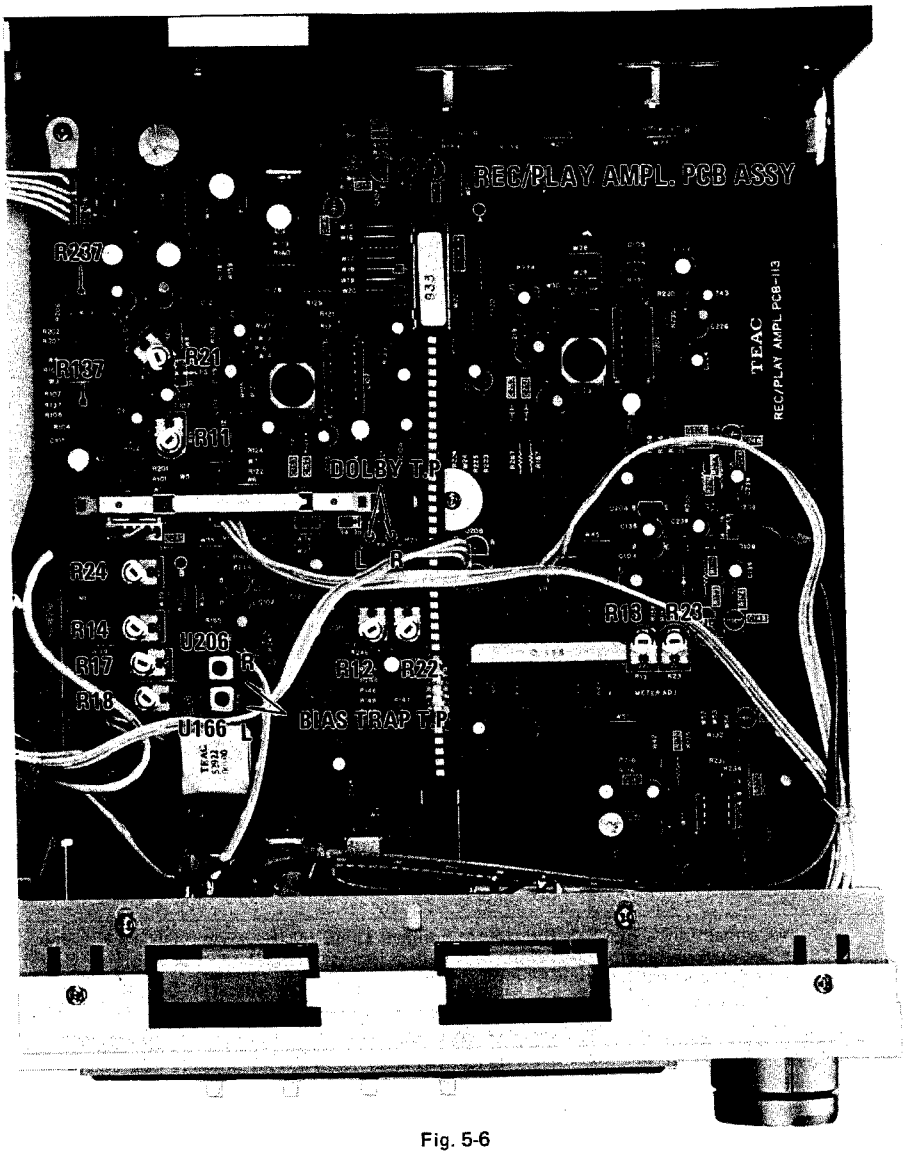
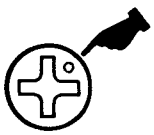


Fig. 5-6

ASSEMBLING HARDWARE CODING LIST

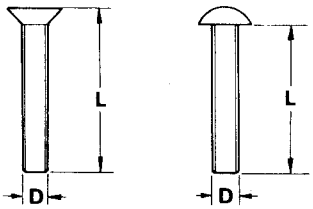
All screws conform to ISO standards, and have crossrecessed heads, unless otherwise noted. ISO screws have the head inscribed with a point as in the figure to the right.



FOR EXAMPLE:

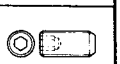
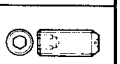
B M 3 x 6

- Length in mm (L)
- Diameter in mm (D) *
- Metric System
- Nomenclature



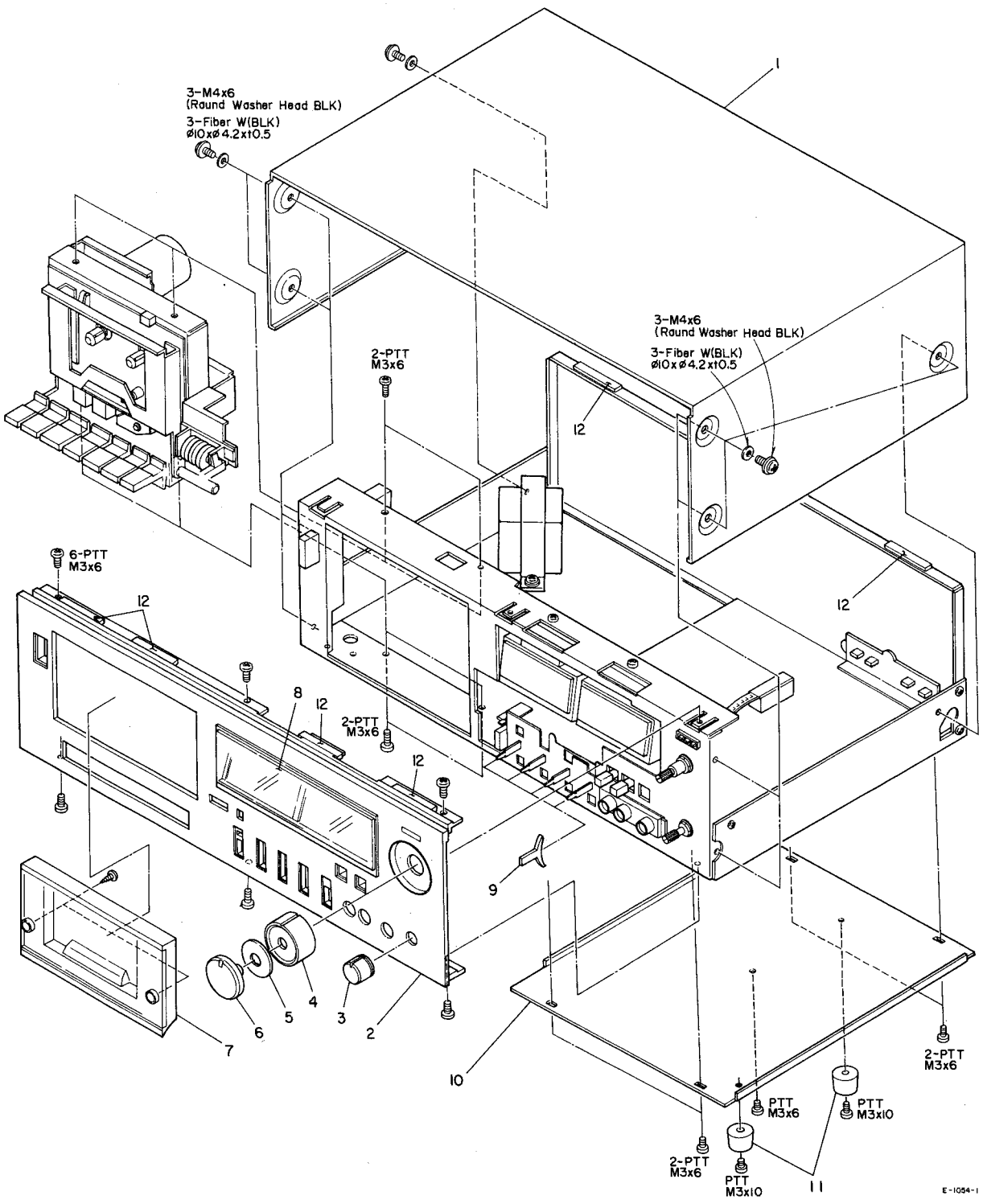
* Inner dia. for washers and nuts

	Code	Name	Type
MACHINE SCREW	R	Round Head Sorew	
	P	Pan Head Screw	
	T	Stove Head Sorew (Truss)	
	B	Binding Head Screw	
	F	Flat Countersunk Head Screw	
	O	Oval Countersunk Head Screw	
WOOD SCREW	RW	Round Head Wood Screw	
TAPTITE SCREW	PTT	Pan Head Taptite Screw	
	WTT	Washer Head Taptite Screw	
SEMS SCREW	BSA	Binding Head SEMS Screw(A Type)	
	BSB	Binding Head SEMS Screw(B Type)	
	BSF	Binding Head SEMS Screw(F Type)	
	PSA	Pan Head SEMS Screw(A Type)	
	PSB	Pan Head SEMS Screw(B Type)	

	Code	Name	Type
TAPPING SCREW	BTA	Binding Head Tapping Screw(A Type)	
	BTB	Binding Head Tapping Screw(B Type)	
	RTA	Round Head Tapping Screw(A Type)	
	RTB	Round Head Tapping Screw(B Type)	
SETSCREW	SF	Hex Socket Setscrew(Flat Point)	
	SC	Hex Socket Setscrew(Cup Point)	
	SS	Slotted Socket Setscrew(Flat Point)	
WASHER	E	E-Ring (Retaining Washer)	
	W	Flat Washer (Plain)	
	SW	Lock Washer (Spring)	
	LWI	Lock Washer (Internal Teeth)	
	LWE	Lock Washer (External Teeth)	
	TW	Trim Washer (Countersunk)	
NUT	N	Hex Nut	

D EXPLODED VIEWS AND PARTS LIST

EXPLDDED VIEW - 1



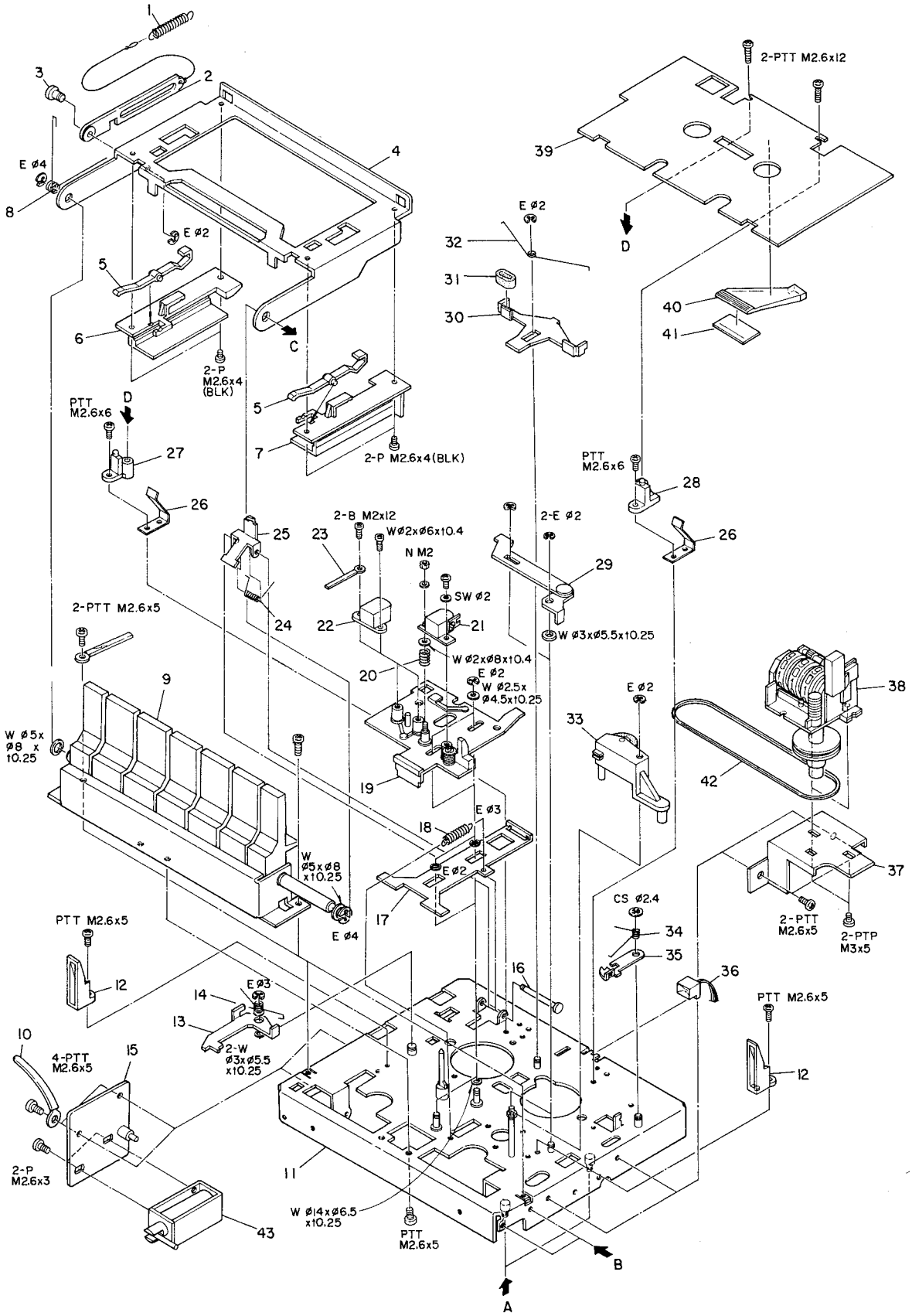
Parts marked with *require longer delivery time than ragular parts.

REF. NO.	PARTS NO.	DESCRIPTION	REMARKS
1 - 1	*5800009900	Cover, Top	CX-350
	*5552438000	Cover, Top	CX-351
1 - 2	*5640001710	Panel Assy, Front; C	CX-350
	*5640001720	Panel Assy, Front; E	CX-351
1 - 3	*5800018100	Knob, VR	
1 - 4	*5800018400	Knob, REC; B	
1 - 5	*5800025400	Washer, Felt	
1 - 6	*5800018200	Knob, REC; A	
1 - 7	*5640002100	Cover Assy, Cassette	CX-350
	*5800005400	Cover Assy, Cassette; C	CX-351
1 - 8	*5800010900	Escutcheon Assy, Meter	CX-350
	*5800018700	Escutcheon Assy, Meter	CX-351
1 - 9	*5800018300	Knob, Lever SW	
1 - 10	*5800010400	Cover, Bottom	
1 - 11	5534432000	Foot	
1 - 12	5555570000	Cushion, Top Cover	

INCLUOEO ACCESSORIES

REF. NO.	PARTS ND.	DESCRIPTION	REMARKS
	5128107000	Cord, Input-output Connection	
	5534580000	Belt, C	
	5101345000	Information Supplement, Cassette	U.S.A.
	5101495000	Information Supplement, Cassette	All except U.S.A.
	5700001600	CX-350/CX-351 Owner's Manual	U.S.A.
	5700001800	CX-350/CX-351 Owner's Manual	All except U.S.A.

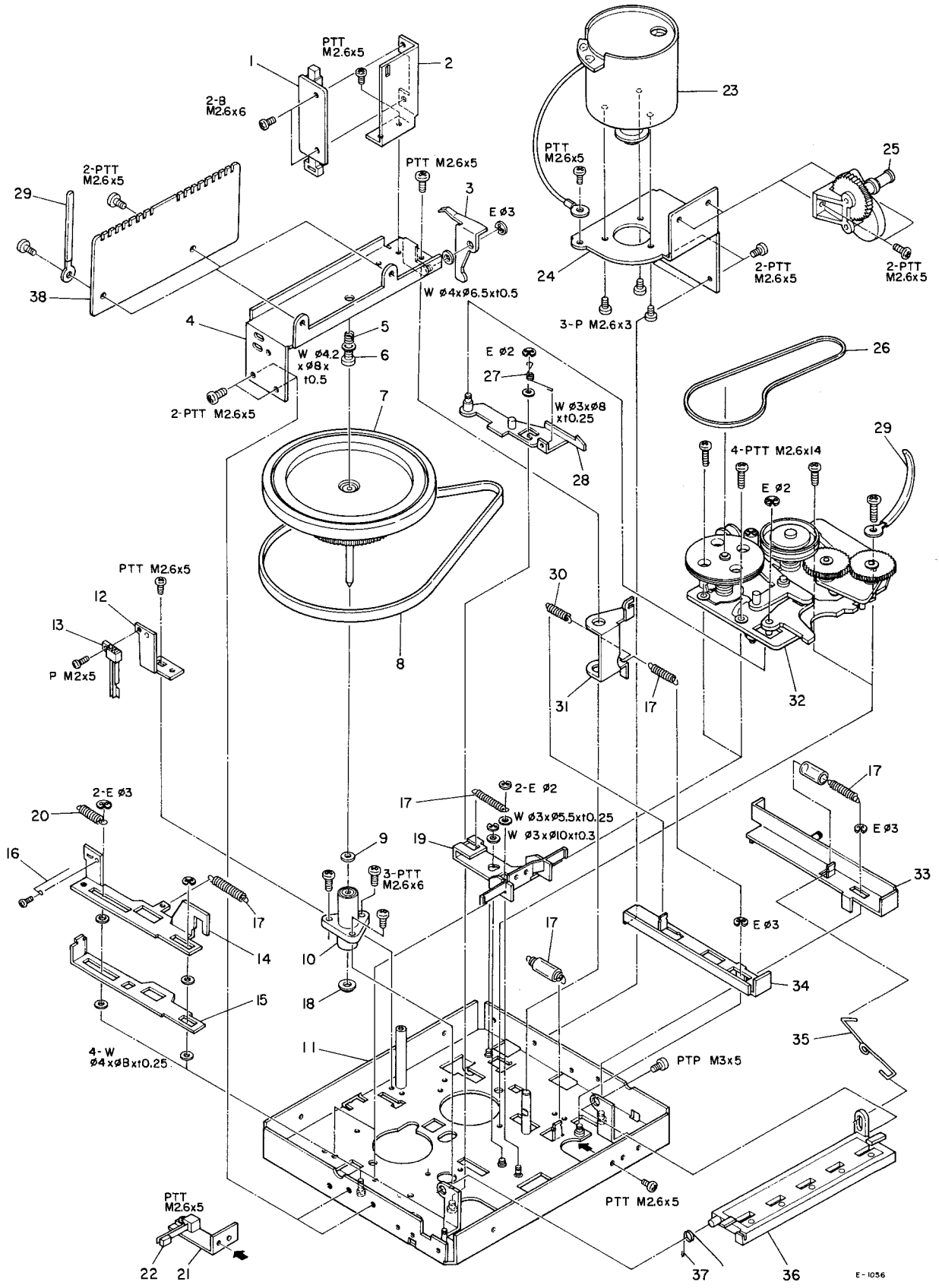
EXPLDDED VIEW - 2



Parts marked with *require longer delivery time than regular parts.

REF. NO.	PARTS NO.	DESCRIPTION	REMARKS
2 - 1	*5524203000	Spring, Damper	
2 - 2	*5534612000	Plate, Lock	
2 - 3	*5545089000	Shaft, Lock Plate	
2 - 4	5553323000	Holder, Cassette	
2 - 5	5534615000	Spring, Cassette Pressure	
2 - 6	5534613000	Guide, Cassette; L	
2 - 7	5534614000	Guide, Cassette; R	
2 - 8	*5524247000	Spring, Holder	
2 - 9	*5800025000	Button Assy	All except CX-351
	*5800025100	Button Assy	CX-351
2 - 10	*5581038000	Clamper, Cord; A	
2 - 11	*5502239004	Chassis, Mechanism	
2 - 12	*5534444200	Guide, Cassette	
2 - 13	*5555762000	Arm, Eject Preventing	
2 - 14	*5800025500	Spring, Arm; B	
2 - 15	*5800013300	Plate Assy, Solenoid	
2 - 16	*5544655000	Shaft, Record Preventing	
2 - 17	*5555755000	Plate, Brake Actuating	
2 - 18	*5524240000	Spring, Brate Actuating Plate	
2 - 19	5504755002	Plate Assy, Heed Base	
2 - 20	*5524120000	Spring, Head	
2 - 21	*5378600100	Head, REC/PLAY	
2 - 22	*5569613000	Head, Erase	
2 - 23	*5581062000	Clamper, Cord; E	
2 - 24	*5520349000	Spring, Safety Lever	
2 - 25	*5555081100	Lever, Safety; C	
2 - 26	*5555773000	Plate, Cassette Pressure	
2 - 27	*5534765000	Cassette Guide, L	
2 - 28	*5534765000	Cassette Guide, R	
2 - 29	5504773000	Arm Assy, Pause	
2 - 30	*5555759000	Plate, Brake	
2 - 31	*5534844000	Shoe, Brake	
2 - 32	*5524241000	Spring, Brake	
2 - 33	5504760002	Pinch Roller Assy	
2 - 34	*5084550200	Spring, Lock	
2 - 35	*5084643200	Plate, Lock	
2 - 36	*5310005000	Lamp, w/Holder	
2 - 37	*5800015100	Bracket, Counter	
2 - 38	*5800017400	Counter Assy	
2 - 39	*5555770001	Plate, Cassette Holder	
2 - 40	*5534751000	Lens, Cassette	
2 - 41	*5555771000	Plate, Refrective	
2 - 42	5534759000	Belt, Counter	
2 - 43	*5813000200	Solenoid	

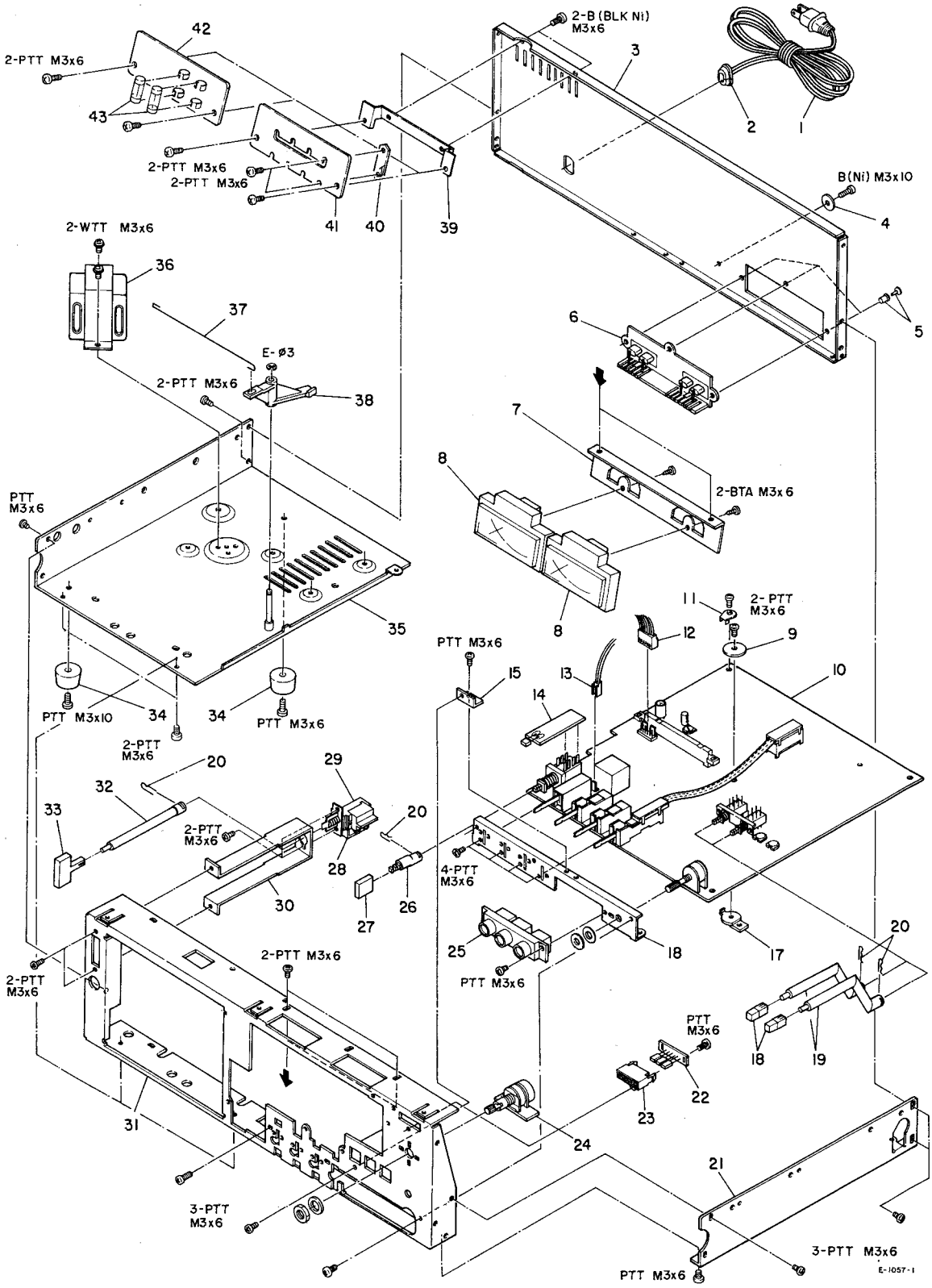
EXPLDDED VIEW - 3



Parts marked with *require longer delivery time than regular parts.

REF. NO.	PARTS NO.	DESCRIPTION	REMARKS
3 - 1	*5200003600	PCB Assy, SWITCH	
	*5210003600	PCB, SWITCH; A	Part of 3 - 1
	5131030000	Switch, Slide	Part of 3 - 1
3 - 2	*5555754000	Bracket, Switch; A	
3 - 3	*5555753000	Lever, Slide Switch	
3 - 4	*5504758000	Plate Assy, Thrust	
3 - 5	*5524251001	Spring, Thrust	
3 - 6	*5534744000	Screw, Thrust	
3 - 7	5504756002	Capstan Assy	
3 - 8	5534767000	Belt, Capstan Drive	
3 - 9	*5550031000	Washer, Thrust	
3 - 10	5504091000	Housing Assy, Capstan	
3 - 11	*5502239004	Chassis, Mechanism	
3 - 12	*5555755000	Bracket, Switch; B	
3 - 13	5135003000	Switch, Leaf	
3 - 14	*5504772000	Lever Assy, Pause; A	
3 - 15	*5555766001	Lever, Pause; B	
3 - 16	*5524244001	Spring, Pause	
3 - 17	*5524235000	Spring, Lever Return	
3 - 18	5534130000	Washer, Oil Retaining	
3 - 19	*5800017100	Lever Assy, FF; B	
3 - 20	*5524250000	Spring, Head Base Plate	
3 - 21	*5800012300	Bracket, Switch; D	
3 - 22	*5301752600	Switch, Leaf	
3 - 23	*5370000100	Motor Assy, Capstan	
3 - 24	*5555761000	Bracket, Motor Assy	
3 - 25	*5504777000	Damper Assy, C	
3 - 26	5534768000	Belt, Relay	
3 - 27	*5524246000	Spring, Stop Lever	
3 - 28	*5504774000	Lever Assy, Stop	
3 - 29	*5581038000	Clamper, Cord; A	
3 - 30	*5524243000	Spring, Record	
3 - 31	*5555764000	Arm, Record Actuating	
3 - 32	5502240005	Gear Assy, Sub Base	
3 - 33	*5504771000	Lever Assy, Eject	
3 - 34	*5555763000	Lever, Record	
3 - 35	*5524293000	Lever, Lock Actuating	
3 - 36	5533221001	Plate, Button Lock	
3 - 37	*5800037501	Spring, Plate; B	
3 - 38	*5210003401	PCB Assy, MECHANISM	

EXPLDDED VIEW - 4



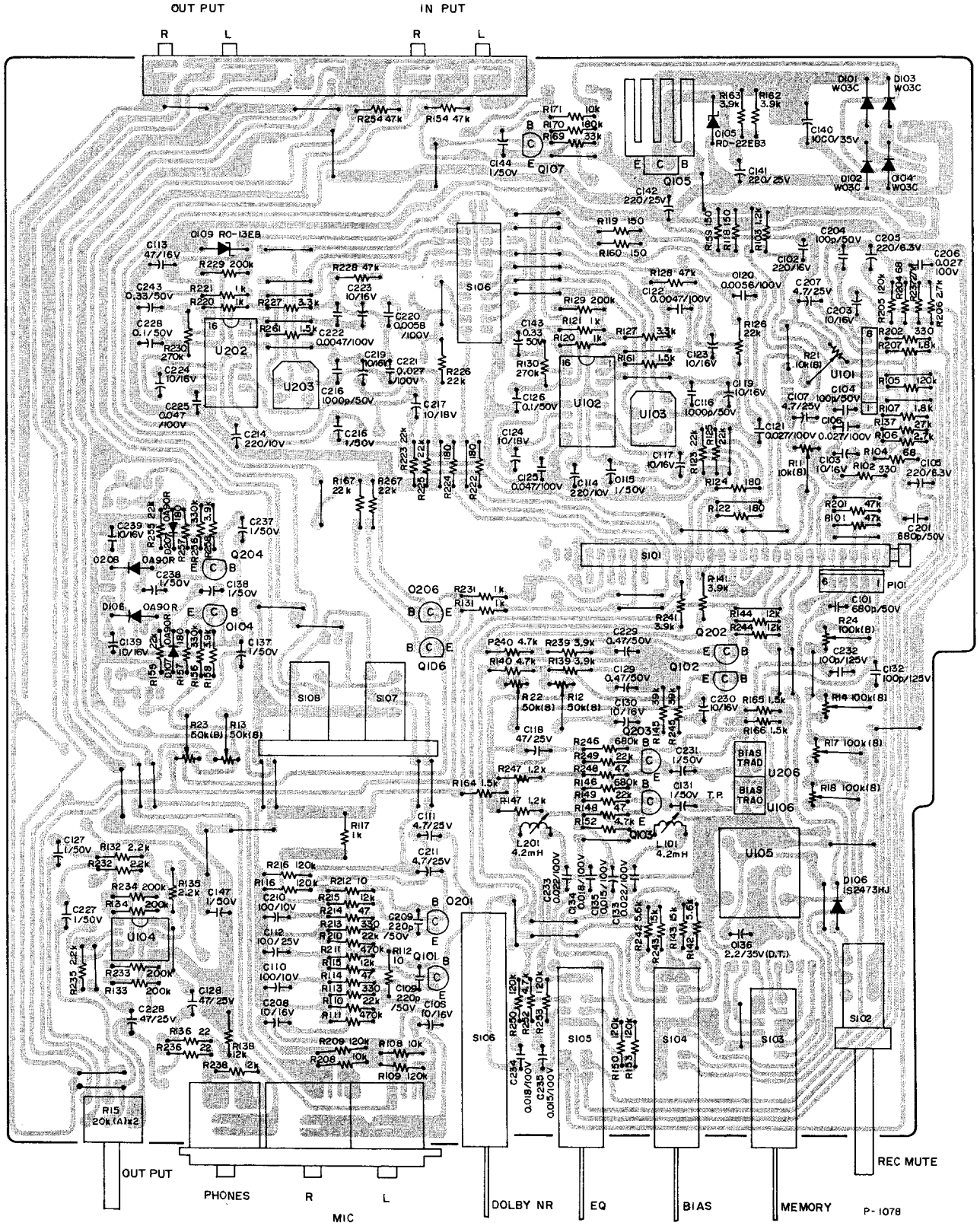
Parts marked with *require longer delivery time than regular parts.

REF. NO.	PARTS NO.	DESCRIPTION	REMARKS
4 - 1	⚠*5128034000	Cord, AC Power	GENERAL EXPORT
	⚠*5128075000	Cord, AC Power	U.S.A., CANADA
	⚠*5128017000	Cord, AC Power	EUROPE
	⚠*5128036000	Cord, AC Power	U.K.
	⚠*5128031000	Cord, AC Power	AUSTRALIA
4 - 2	*5534660000	Strain Relief, AC Power Cord	All except U.K., EUROPE
	*5534661000	Strain Relief, AC Power Cord	U.K.
	*5534663000	Strain Relief, AC Power Cord	AUSTRALIA
4 - 3	*5800010300	Panel, Rear	
4 - 4	*5555063000	Washer, GND	
4 - 5	*5534118000	Rivet, Push	
4 - 6	*5126038000	Terminal Assy, IN/OUTPUT	
4 - 7	*5800008700	Bracket, Meter	
4 - 8	*5296000500	Meter, VU	
4 - 9	*5580007000	Washer	
4 - 10	*5200002703	PCB Assy, REC/PLAY AMPL.	
4 - 11	*5555590000	Plate, GND; A	Part of 4 - 10
4 - 12	*5122168000	Connector, Socket; 6P	
4 - 13	*5122164000	Connector, Socket; 2P	
4 - 14	*5200002900	PCB Assy, LED; A	
	*5210002900	PCB, LED; A	
	5225005100	LED (Red)	
4 - 15	*5800008900	Plate, Reinforcing; B	
4 - 16	*5800009400	Bracket, Switch	
4 - 17	*5800009000	Bracket, PCB	
4 - 18	*5800004500	Button, C	
4 - 19	*5534652000	Rod, Switch; C	
4 - 20	*5786360500	R Pin, ϕ5	
4 - 21	*5800009500	Chassis, Right; B	
4 - 22	*5200003000	PCB Assy, LED; B	
	*5210003000	PCB, LED; B	
	5225005100	LED (Red)	
4 - 23	*5800010600	Holder, LED	
4 - 24	*5200003100	PCB Assy, VR	
	*5210003100	PCB, VR	
	5282705002	Var. Res., 100 k ohm (A) x 2	
4 - 25	*5124063000	Jack Assy, 3-gang	
4 - 26	*5800008400	Shaft, Joint; C	
4 - 27	*5800017900	Button	
4 - 28	⚠*5052907000	Spark Killer, 0.01 mfd + 300 ohm 400V	GENERAL EXPORT, AUSTRALIA
	⚠*5052910000	Spark Killer, 0.033 mfd + 120 ohm 125V	U.S.A.
	⚠*5052911000	Spark Killer, 0.033 mfd + 120 ohm 250V	CANADA
	⚠*5180001000	Spark Killer, 0.047 mfd 250V	EUROPE, U.K.
4 - 29	⚠*5134036000	Switch, Push; Power	AUSTRALIA
	⚠*5134037000	Switch, Push; Power	U.S.A.
	⚠*5134018000	Switch, Push; Power	CANADA
	⚠*5134044000	Switch, Push; Power	EUROPE, U.K.
	⚠*5300017800	Switch, Push; Power	GENERAL EXPORT
4 - 30	*5800008800	Bracket, Power Switch	
4 - 31	*5800010500	Chassis, Front	
4 - 32	*5800008300	Rod, Power Switch	
4 - 33	*5800017700	Button, Push; A	
4 - 34	5534432000	Poot	
4 - 35	*5800011200	Chassis, Left	
4 - 36	⚠*5320000500	Transformer, Power	U.S.A.
	⚠*5320000600	Transformer, Power	CANADA
	⚠*5320000700	Transformer, Power	GENERAL EXPORT
	⚠*5320000S00	Transformer, Power	EUROPE, U.K., AUSTRALIA
4 - 37	*5800008600	Link, Record	
4 - 38	*5800008100	Lever, Record	
4 - 39	*5800009300	Bracket	GENERAL EXPORT
4 - 40	*5555062000	Plate, Shorting Bar	GENERAL EXPORT
4 - 41	*5167548100	PCB, VOLTAGE SELECTOR	GENERAL EXPORT
4 - 42	*5210002400	PCB, FUSE	EUROPE, U.K.
	*5142087000	Holder, Fuse	Part of 4 - 42
4 - 43	*5041138000	Fuse, T 500 mA 250V	EUROPE, U.K.

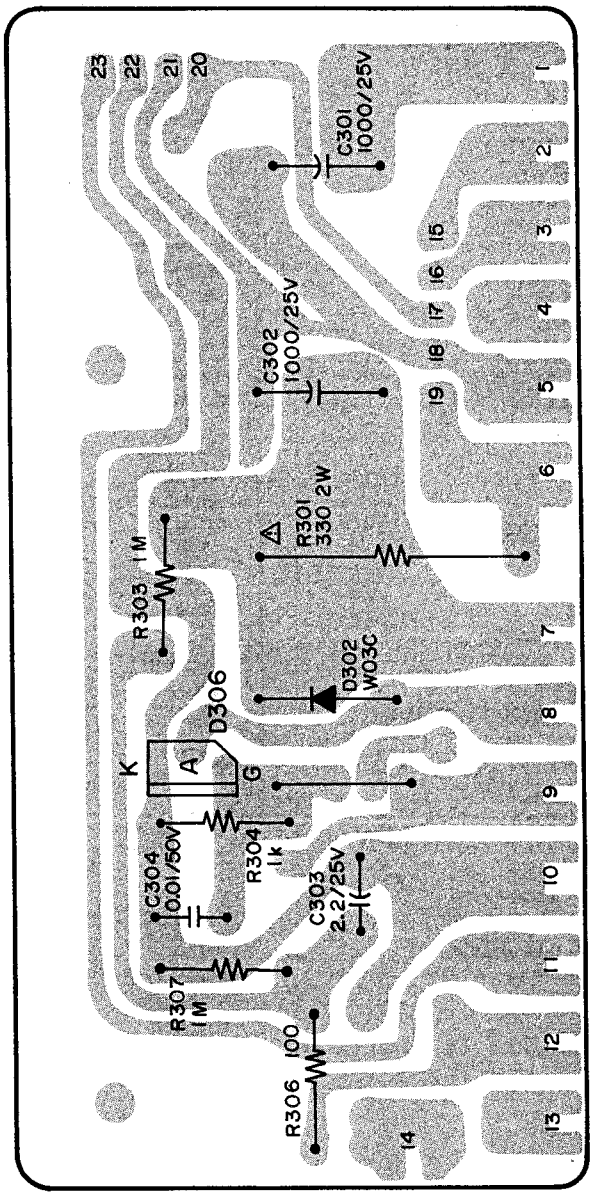
7 PC BOARDS AND PARTS LIST

PC Boards shown viewed from foil side.

REC/PLAY AMPL. PCB ASSY



MECHANISM PCB ASSY



P-1079

REC/PLAY AMPL. PCB ASSY

REF. NO.	PARTS NO.	DESCRIPTION
	5200002703	PCB Assy, REC/PLAY AMPL. (All except EUROPE)
	5200002713	PCB Assy, REC/PLAY AMPL. (EUROPE)
	5210002701	PCB, REC/PLAY AMPL.
		ICs
U101	5147061000	μPC-1032H
U102, U202	5147046000	NE-646B
U104	5220405000	μPC-4557C
		TRANSISTORS
Q101, Q201	5042495000	2SC-1222E
Q102, Q202	5145185000	2SD-655E
Q103, Q203	5145091000	2SC-945AK
Q104, Q204	5145091000	2SC-045AK
Q105	5145087000	2SD-313E
		DIODES
D101 ~ D104	⚠5143315000	W03C
D105	5224517500	Zener, RD22EB3
D106	5143118000	1S2473HJ
D107, D207	5224012800	OA90R
D108, D208	5224012800	OA90R
D109	5143108000	Zener, RD13EB3
		CARBON RESISTORS
		All resistors are rated ±5% tolerance and ¼ watt.
R101, R201	5183122000	47 k ohm
R102, R202	5183070000	330 ohm
R103	5183084000	1.2 k ohm
R104, R204	5183054000	68 ohm
R105, R205	5183132000	120 k ohm
R106, R206	5183092000	2.7 k ohm
R107, R207	5183088000	1.8 k ohm
R108, R208	5183106000	10 k ohm (EUROPE)
R109, R209	51B3132000	120 k ohm
R110, R210	5183114000	22 k ohm
R111, R211	5183146000	470 k ohm
R112, R212	5183034000	10 ohm
R113, R213	5183070000	330 ohm
R114, R214	51B3050000	47 ohm
R115, R215	5183108000	12 k ohm
R116, R216	51B3132000	120 k ohm
R117	5183082000	1 k ohm
R11B	5183062000	150 ohm
R119	51B3062000	150 ohm
R120, R220	5183082000	1 k ohm
R121, R221	5183082000	1 k ohm
R122, R222	5183064000	1B0 ohm
R123, R223	5183114000	22 k ohm
R124, R224	51B3004000	180 ohm
R125, R225	5183114000	22 k ohm
R126, R226	5183114000	22 k ohm
R127, R227	5183004000	3.3 k ohm
R128, R228	5183122000	47 k ohm
R129, R229	5183137000	200 k ohm
R130, R230	5183140000	270 k ohm

REF. NO.	PARTS NO.	DESCRIPTION
R131, R231	5183082000	1 k ohm
R132, R232	5183090000	2.2 k ohm
R133, R233	5183137000	200 k ohm
R134, R234	5183137000	200 k ohm
R135, R235	5183090000	2.2 k ohm
R136, R236	5183042000	22 ohm
R137, R237	5183116000	27 k ohm
R138, R238	5183108000	12 k ohm
R139, R239	5183096000	3.9 k ohm
R140, R240	5183098000	4.7 k ohm
R141, R241	5183096000	3.9 k ohm
R142, R242	5183100000	5.6 k ohm
R143, R243	5183110000	15 k ohm
R144, R244	5183108000	12 k ohm
R145, R245	5183120000	39 k ohm
R146, R246	5183150000	680 k ohm
R147, R247	5183084000	1.2 k ohm
R148, R248	5183050000	47 ohm
R149, R249	5183114000	22 k ohm
R150, R250	5183132000	120 k ohm
R152, R252	5183098000	4.7 k ohm
R153, R253	5183132000	120 k ohm
R154, R254	5183122000	47 k ohm
R155, R255	5183114000	22 k ohm
R156, R250	5183142000	330 k ohm
R157, R257	5183064000	180 ohm
R158, R258	5183096000	3.9 k ohm
R159	5183062000	150 ohm
R160	5183062000	150 ohm
R161, R261	5183086000	1.5 k ohm
R162	5183096000	3.9 k ohm
R163	5183096000	3.9 k ohm
R164	5183086000	1.5 k ohm
R165	5183086000	1.5 k ohm
R166	5183086000	1.5 k ohm
R168	5183090000	2.2 k ohm

CAPACITORS

C101, C201	5172322000	Ceramic	680 pfd	50V	10%
C102	5173054000	Elec.	220 mfd	16V	
C103, C203	5173571800	Elec.	10 mfd	16V	
C104, C204	5172312000	Ceramic	100 pfd	50V	10%
C105, C205	5173052000	Elec.	220 mfd	6.3V	
C106, C206	5170435000	Mylar	0.027 mfd	100V	5%
C107, C207	5173004000	Elec.	4.7 mfd	25V	
C108, C208	5173571800	Elec.	10 mfd	16V	
C109, C209	5172316000	Ceramic	220 pfd	50V	10%
C110, C210	5173044000	Elec.	100 mfd	10V	
C111, C211	5173004000	Elec.	4.7 mfd	25V	
C112	5173046000	Elec.	100 mfd	25V	
C113	5173036000	Elec.	47 mfd	16V	
C114	5173053000	Elec.	220 mfd	10V	
C115, C215	5173556800	Elec.	1 mfd	50V	
C116, C216	5172324000	Ceramic	0.001 mfd	50V	10%
C117, C217	5173010000	Elec.	10 mfd	16V	
C118	5173037000	Elec.	47 mfd	25V	
C119, C219	5173010000	Elec.	10 mfd	16V	
C120, C220	5170419000	Mylar	0.0056 mfd	100V	5%
C121, C221	5170435000	Mylar	0.027 mfd	100V	5%
C122, C222	5170417000	Mylar	0.0047 mfd	100V	5%
C123, C223	5173010000	Elec.	10 mfd	16V	
C124, C224	5173010000	Elec.	10 mfd	16V	

REF. NO.	PARTS NO.	DESCRIPTION		
C125, C225	5170441000	Mylar	0.047 mfd	100V 50%
C126, C226	5173550800	Elec.	0.1 mfd	50V
C127, C227	5172992000	Elec.	1 mfd	50V
C128, C228	5173037000	Elec.	47 mfd	20V
C129, C229	5173554800	Elec.	0.47 mfd	50V
C130, C230	5173010000	Elec.	10 mfd	16V
C131, C231	5173556800	Elec.	1 mfd	50V
C132, C232	5265041000	Polyst.	100 pfd	125V 5%
C133, C233	5170433000	Mylar	0.022 mfd	100V 5%
C134, C234	5170431000	Mylar	0.018 mfd	100V 5%
C135, C235	5170429000	Mylar	0.015 mfd	100V 5%
C136	5054672000	Dip. Tant.	2.2 mfd	35V 20%
C137, C237	5172992000	Elec.	1 mfd	50V
C138, C238	5172992000	Elec.	1 mfd	50V
C139, C239	5173018000	Elec.	22 mfd	16V
C140	5173083000	Elec.	1000 mfd	35V
C141	5173055000	Elec.	220 mfd	25V
C142	5173055000	Elec.	220 mfd	25V
C143, C243	5173553800	Elec.	0.33 mfd	50V

VARIABLE RESISTORS

R11, R21	5280003502	10 k ohm B	Semi-fixed
R12, R22	5280004002	50 k ohm B	Semi-fixed
R13, R23	5280004002	50 k ohm B	Semi-fixed
R14, R24	5280004202	100 k ohm B	Semi-fixed
R15	5282405502	20 k ohm A x 2	
R17	5280004202	100 k ohm B	Semi-fixed
R18	5280004202	100 k ohm B	Semi-fixed

COILS

L101, L201	5286000100	Choke, 4.2 mH
L102	5160151000	Choke, 1.2 mH
U106, U206	5286000200	Trap

MISCELLANEOUS

S101	5131043000	Switch, Slide; 9PDT
S102	5300017600	Switch, Push; DPDT
S103	5132037000	Switch, Lever; DPDT
S104	5132034000	Switch, Lever; 4P3T
S105	5132034000	Switch, Lever; 4P3T
S106	5300510000	Switch, Lever; Actuator
	5300907500	Switch, Lever; Switching Section
	5302100000	Switch, Lever; Wire
S107, S108	5300017700	Switch, Push; DPDT (2-gang)
	5126038000	Terminal Assy, IN/OUTPUT
	5126037000	Terminal Assy, IN/OUTPUT (EUROPE)
	5124063000	Jack, 3-gang
P101	5122130000	Connector Plug, 6P
P102	5122126000	Connector Plug, 2P
U103, U203	5292802500	Filter, Low-pass
U105	5292200100	OSC Unit, 100 kHz
	5844750000	Pin, TP
	5553132000	Heat Sink
	5555590000	Plate, GND; A

MECHANISM PCB ASSY

REF. NO.	PARTS NO.	DESCRIPTION
	5200003401	PCB Assy, MECHANISM
	5210003400	PCB, MECHANISM

THYRISTOR

D306	5143090000	SCR2P1M

DIOOE

D302	5143315000	W03C

RESISTORS

All resistors are rated ±5% tolerance, ¼ watt and of carbon type unless otherwise noted.

R301	⚠5184803000	330 ohm	2W Metal Film
R303	5183154000	1 M ohm	
R304	5183082000	1 k ohm	
R306	5183058000	100 ohm	
R307	5183154000	1 M ohm	

CAPACITORS

C301	5173082000	Elec.	1000 mfd	25V
C302	5173082000	Elec.	1000 mfd	25V
C303	5172996000	Elec.	2.2 mfd	50V
C304	5170425000	Mylar	0.01 mfd	100V

CX-350/CX-351

TEAC®

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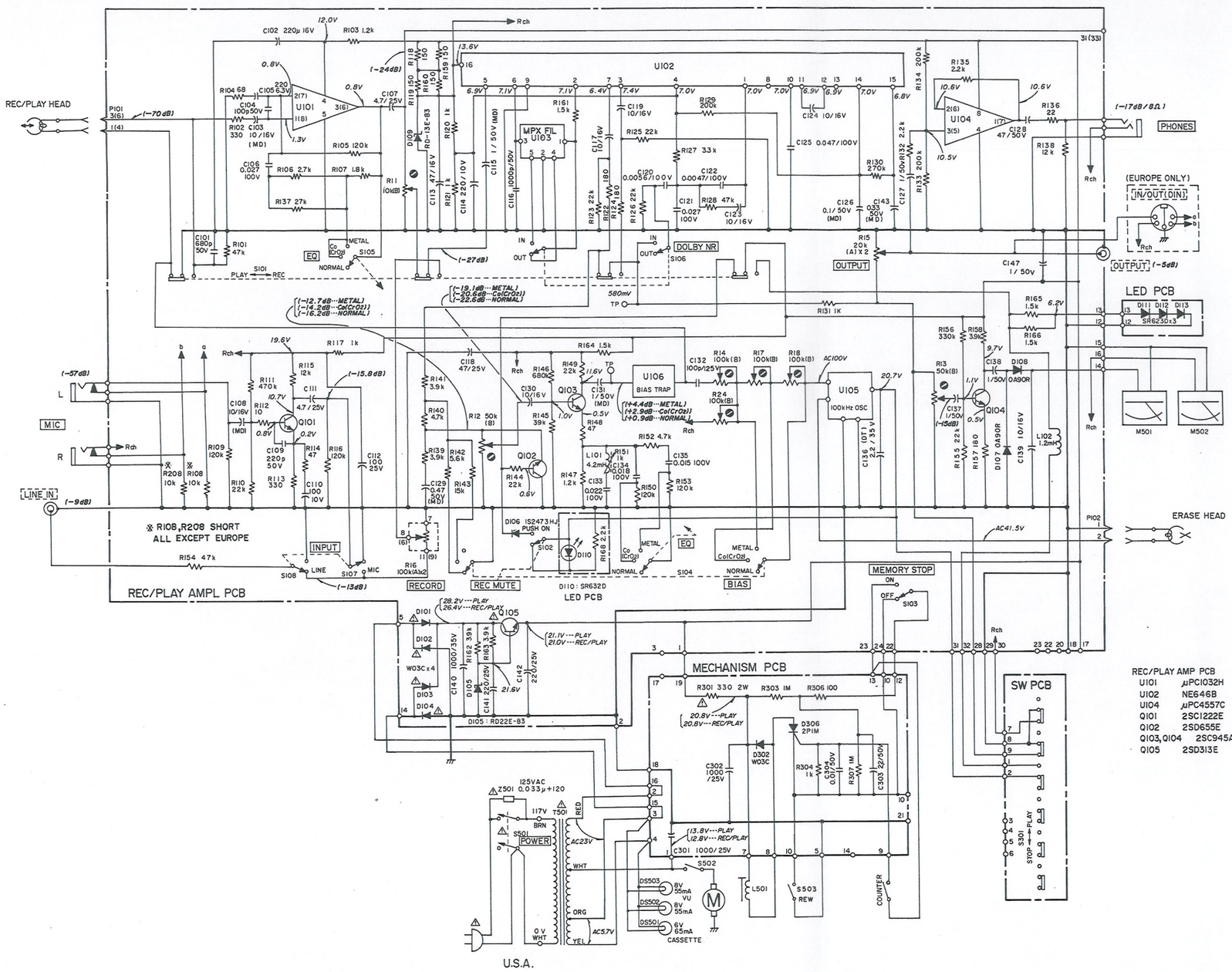
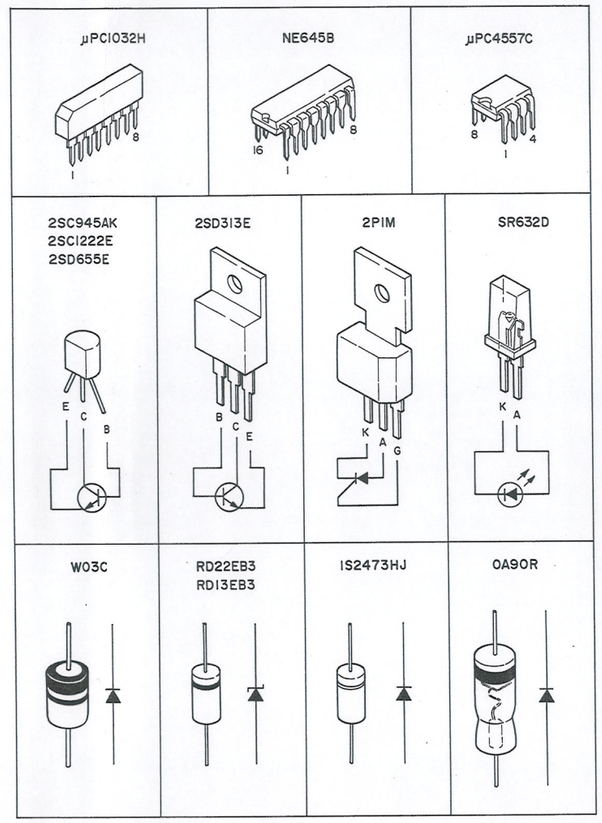
TEAC SCHEMATIC DIAGRAM





REC/PLAY AMP PCB

U101	μPC1032H
U102	NE646B
U104	μPC4557C
Q101	2SC1222E
Q102	2SD655E
Q103, Q104	2SC945AK
Q105	2SD313E

NOTES

1. ALL RESISTORS ARE ¼ WATT, 5%, UNLESS MARKED OTHERWISE. RESISTOR VALUES ARE IN OHMS (k = 1,000 OHMS, M = 1,000,000 OHMS).
2. ALL CAPACITOR VALUES ARE IN MICROFARADS (p = PICOFARADS).
3. SCHEMATIC DIAGRAM SHOWN FOR LEFT CHANNEL EXCEPT FOR SOME OF THE COMPONENTS.
4. DC VOLTAGES WERE MEASURED DURING RECORD PAUSE MODE UNLESS OTHERWISE NOTED.
5. ⚠PARTS MARKED WITH THIS SIGN ARE SAFETY CRITICAL COMPONENTS. THEY MUST ALWAYS BE REPLACED WITH IDENTICAL COMPONENTS - REFER TO THE TEAC PARTS LIST AND ENSURE EXACT REPLACEMENT.

CX-350/CX-351

Stereo Cassette Deck